

IN THE CLAIMS:

Please amend the claims being submitted herewith as follows:

1. (Original) A crystal growing method comprising the steps of:
forming a step-terrace structure on a SiC surface and then removing an oxide film from the surface; and
performing at least one cycle of a process of irradiation of Si or Ga under high vacuum and then heating, and then growing a Group III nitride.
2. (Original) The crystal growing method according to claim 1, wherein the step of growing a Group III nitride is performed at a temperature lower than the temperature of the substrate during the heating step.
3. (Currently Amended) A crystal growing method comprising the steps of:
removing an oxide film on a surface and forming a flat and clean SiC surface;
and
growing a Group III nitride under high vacuum, wherein a Group III element of an amount corresponding to a single monolayer or of a smaller amount is fed onto said clean SiC surface before nitrogen is fed.
4. (Currently Amended) A crystal growing method comprising the steps of:
removing an oxide film on a surface and forming a flat and clean SiC surface;
growing a Group III nitride of an amount corresponding to a single monolayer or of a smaller amount on said clean SiC surface under high vacuum, wherein a surface control element for controlling the mode of crystal growth of said Group III nitride on the SiC surface is fed first; and
feeding a Group III element and nitrogen, followed by the termination of the feeding of said surface control element.
5. (Original) The crystal growing method according to claim 4, wherein said surface control element is Ga or In.
6. (Currently Amended) A crystal growing method comprising the steps of:
controlling ~~the~~ a SiC surface to acquire a step-terrace structure; and

removing an oxide film ~~from~~ on the surface using a solution containing fluorine in an atmosphere of reduced oxygen partial pressure ~~and growing a Group-III nitride~~ under high vacuum while the step-terrace structure is maintained.

7. (Currently Amended) The crystal growing method according to claim 1 ~~any one of claims 1 to 6~~, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001)Si or (000-1)C plane.
8. (Currently Amended) A stacked structure comprising:
 - an SiC layer;
 - a ~~Group-III nitride~~ AlN layer; and
 - Ga atoms or In atoms on the ppm order remaining between said SiC layer and said ~~Group-III nitride~~ AlN layer.
9. (Currently Amended) The crystal growing method according to claim 1 [[or 2]], comprising the step of forming a step-terrace structure on said SiC surface and removing an oxide film on the surface, and the step of removing the oxide film on the surface and forming a flat and clean SiC surface,
 - wherein the step of growing a Group-III nitride comprises feeding nitrogen after the Group III element has been fed.
10. (Currently Amended) The crystal growing method according to claim 1 [[or 2]], comprising the steps of removing an oxide film on the surface and forming a flat and clean SiC surface,
 - wherein the steps of growing a Group-III nitride under high vacuum comprises the steps of:
 - feeding, first, a surface control element for controlling the mode of crystal growth of said Group-III nitride on said SiC surface, feeding a group III element and nitrogen, followed by the termination of the feeding of said surface control element.
11. (Currently Amended) The crystal growing method according to claim 1 [[or 2]], wherein the step of removing the oxide film comprises removing an oxide film on the surface using a solution containing fluorine in an atmosphere of reduced oxygen

partial pressure, and then growing a Group-III nitride.

12. (Currently Amended) A heterojunction MISFET comprising:
 - a SiC substrate;
 - an AlN layer formed by the crystal growing method comprising the steps of: forming a step-terrace structure on a SiC surface and then removing an oxide film from the surface; and performing at least one cycle of a process of irradiation of Si or Ga under high vacuum and then heating, and then growing a Group III nitride, or wherein the step of growing a Group III nitride is performed at a temperature lower than the temperature of the substrate during the heating step according to claim 1 or 2;
 - a gate electrode formed on said AlN layer; and
 - a source and a drain formed on either side of said gate electrode.
13. (Currently Amended) A heterojunction laser device comprising:
 - a SiC substrate;
 - an AlN buffer layer formed by the crystal growing method comprising the steps of: forming a step-terrace structure on a SiC surface and then removing an oxide film from the surface; and performing at least one cycle of a process of irradiation of Si or Ga under high vacuum and then heating, and then growing a Group III nitride, or wherein the step of growing a Group III nitride is performed at a temperature lower than the temperature of the substrate during the heating step according to claim 1 or 2;
 - a first AlGaIn cladding layer formed on said AlN layer;
 - a GaN/InGaIn multiquantum well structure; and
 - a second AlGaIn cladding layer formed on said multiquantum well structure.
14. (New) The crystal growing method according to claim 2, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001)Si or (000-1)C plane.
15. (New) The crystal growing method according to claim 3, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001)Si or (000-1)C plane.
16. (New) The crystal growing method according to claim 4, wherein said SiC surface has

an offset angle of 0 to 15° with respect to the (0001)S_i or (000-1)C plane.

17. (New) The crystal growing method according to claim 5, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001)S_i or (000-1)C plane.
18. (New) The crystal growing method according to claim 6, wherein said SiC surface has an offset angle of 0 to 15° with respect to the (0001)S_i or (000-1)C plane.
19. (New) The crystal growing method according to claim 2, comprising the step of forming a step-terrace structure on said SiC surface and removing an oxide film on the surface, and the step of removing the oxide film on the surface and forming a flat and clean SiC surface,
wherein the step of growing a Group-III nitride comprises feeding nitrogen after the Group III element has been fed.
20. (New) The crystal growing method according to claim 2, comprising the steps of removing an oxide film on the surface and forming a flat and clean SiC surface,
wherein the steps of growing a Group-III nitride under high vacuum comprises the steps of:
feeding, first, a surface control element for controlling the mode of crystal growth of said Group-III nitride on said SiC surface, feeding a group III element and nitrogen, followed by the termination of the feeding of said surface control element.
21. (New) The crystal growing method according to claim 2, wherein the step of removing the oxide film comprises removing an oxide film on the surface using a solution containing fluorine in an atmosphere of reduced oxygen partial pressure, and then growing a Group-III nitride.